

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of)
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Byung-kyu LEE) Group Art Unit: Unassigned
)
Application No.: New Application) Examiner: Unassigned
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Filed: Herewith)
)
For: PERPENDICULAR MAGNETIC)
RECORDING MEDIUM)

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Prior to examination on the merits, kindly amend the above-captioned application as follows:

IN THE SPECIFICATION:

Kindly add the following paragraph on page 1, after the title of the invention and before the "Background of the Invention," --Priority is claimed to Patent Application Number 2001-155, filed in the Republic of Korea on January 3, 2001, herein incorporated by reference.--

IN THE CLAIMS:

Kindly replace claims 3, 4, 6, and 8-10 as follows:

3. (Amended) The perpendicular magnetic recording medium of claim 1, wherein the crystal growth discontinuation layer has a thickness no greater than 20 nm.

4. (Amended) The perpendicular magnetic recording medium of claim 1, wherein the crystal growth discontinuation layer is formed of at least one material selected from the group consisting of Ti, Ta, permalloy, and an alloy of these materials.

6. (Amended) The perpendicular magnetic recording medium of claim 1, wherein the perpendicular magnetic recording layer is formed of a CoCr alloy.

8. (Amended) The perpendicular magnetic recording medium of claim 1, further comprising a protective layer and a lubricant layer sequentially on the perpendicular magnetic recording layer.

9. (Amended) The perpendicular magnetic recording medium of claim 1, wherein the perpendicular magnetic recording medium has a double-layer structure with including a soft magnetic layer between the substrate and the perpendicular orientation promoting underlayer.

10. (Amended) The perpendicular magnetic recording medium of claim 1, wherein the perpendicular magnetic recording medium has a pseudo double-layer structure with a soft magnetic layer between the perpendicular orientation promoting underlayer and the perpendicular magnetic recording layer.

Kindly add claims 11-16 as follows:

11. (New) The perpendicular magnetic recording medium of claim 2, wherein the crystal growth discontinuation layer has a thickness no greater than 20 nm.

12. (New) The perpendicular magnetic recording medium of claim 2, wherein the crystal growth discontinuation layer is formed of at least one material selected from the group consisting of Ti, Ta, permalloy, and an alloy of these materials.

13. (New) The perpendicular magnetic recording medium of claim 2, wherein the perpendicular magnetic recording layer is formed of a CoCr alloy.

14. (New) The perpendicular magnetic recording medium of claim 2, further comprising a protective layer and a lubricant layer sequentially on the perpendicular magnetic recording layer.

15. (New) The perpendicular magnetic recording medium of claim 2, wherein the perpendicular magnetic recording medium has a double-layer structure with including a soft

magnetic layer between the substrate and the perpendicular orientation promoting underlayer.


16. (New) The perpendicular magnetic recording medium of claim 2, wherein the perpendicular magnetic recording medium has a pseudo double-layer structure with a soft magnetic layer between the perpendicular orientation promoting underlayer and the perpendicular magnetic recording layer.--

REMARKS

A change has been made to the specification by the above amendments. Claims 3, 4, 6, and 8-10 have been amended and claims 11-16 have been added to remove multiple dependency. Favorable action on the merits is respectfully requested.

Respectfully submitted,

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Attachment to Preliminary Amendment

Marked-up copy of Claims 3, 4, 6, and 8-10

3. (Amended) The perpendicular magnetic recording medium of claim 1 [or 2], wherein the crystal growth discontinuation layer has a thickness no greater than 20 nm.

4. (Amended) The perpendicular magnetic recording medium of claim 1 [or 2], wherein the crystal growth discontinuation layer is formed of at least one material selected from the group consisting of Ti, Ta, Permalloy, and an alloy of these materials.

6. (Amended) The perpendicular magnetic recording medium of claim 1 [or 2], wherein the perpendicular magnetic recording layer is formed of a CoCr alloy.

8. (Amended) The perpendicular magnetic recording medium of claim 1 [or 2], further comprising a protective layer and a lubricant layer sequentially on the perpendicular magnetic recording layer.

9. (Amended) The perpendicular magnetic recording medium of claim 1 [or 2], wherein the perpendicular magnetic recording medium has a double-layer structure with including a soft magnetic layer between the substrate and the perpendicular orientation promoting underlayer.

[illegible]